METAL PROCESSING INSTITUTE
ACRC/CHTE SPRING MEETING AGENDA
June 1-2, 2010

WPI Campus Center – Odeum A and B

Tuesday, June 1, 2010 (Steering Committee and Board Members Only)

1:00 – 3:30 p.m.  ACRC Steering Committee Meeting
                 Chairman’s Room, Campus Center

3:30 – 6:00 p.m.  CHTC Board Members Meeting
                 Chairman’s Room, Campus Center

6:30 p.m.        Reception & Dinner (All Members)
                 ACRC and CHTC Awards to be presented
                 Higgins House, WPI

Wednesday, June 2, 2010

7:30 a.m.        Registration and Continental Breakfast
                 Odeum A & B, Campus Center

8:00 a.m.        Welcome & Opening Comments - D. Apelian

                 Opening Remarks from ACRC Chair – D. Weiss

                 Opening Remarks from CHTC Chair – M. Nallen

8:45 a.m.        Overview of the ACRC Research Portfolio – M. Makhlouf

9:15 a.m.        Overview of the CHTC Research Portfolio – R. Sisson

9:45 a.m.        China Project Center at WPI – K. Rong

10:00 a.m.       Break

PLEASE NOTE:
  Combined Meetings are in black
  Items in blue refer to ACRC meetings
  Items in green refer to CHTC meetings
**ACRC Project Presentations in Odeum A**

10:15 a.m. Predicting the Response of Aluminum Alloys to Heat Treatment (L. Wu)
10:40 a.m. Friction Stir Processing of Aluminum Cast Alloys for High Performance Applications (N. Sun)
11:00 a.m. Aluminum Nano Composites for Elevated Temperature Applications (C. Borgonovo)
11:20 a.m. Processing Routes for Aluminum-Based Nano Composites (H. Yu)
11:40 a.m. Helium-Assisted Sand Casting of Aluminum Alloys (M. Saleem)
12:00 p.m. Update on Other Externally Funded Projects: HyperCast (M. Makhlouf)
12:15 p.m. High-Performance Die Casting Alloys: Castings for Improved Readiness (M. Makhlouf)

**CHTE Project Presentations in Odeum B**

10:15 a.m. Atmosphere vs. Vacuum Carburizing Fatigue Test Comparison (R. Sisson)
10:45 a.m. High Pressure Hydrogen Quenching (K. Rong)
11:15 a.m. Carbonitriding and Subcritical/Ferric Nitrocarburizing (R. Sisson)
11:45 a.m. Grain Growth in Steels (R. Sisson)
12:10 p.m. Numerical Study of Multicrystalline Silicon Ingot Directional Casting Processes (K. Rong)

12:30 p.m. Lunch at Goat’s Head Pub – Founder’s Hall, WPI

1:30 – 2:30 p.m. Focus Group Meetings - Session I (see schedule attached)

2:45 – 3:45 p.m. Focus Group Meetings - Session II (see schedule attached)

4:00 p.m. Meeting Adjourns
# 1:30 – 3:45 p.m. Focus Group Meetings

## Session I: 1:30 – 2:30 p.m. Focus Group Meetings (Four Meetings in parallel)

| ACRC          | Friction Stir Processing of Aluminum Cast Alloys for High Performance Applications *(N. Sun and D. Apelian)*  
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|               | Predicting the Response of Aluminum Alloys to Heat Treatment *(L. Wu and M. Makhlouf)*  
|               | *Taylor Room Campus Center* |
| CHTE          | Atmosphere vs. Vacuum Carburizing Fatigue Test Comparison *(R. Sisson)*  
|               | *Mid-Century Room Campus Center* |
|               | High Pressure Hydrogen Quenching *(K. Rong)*  
|               | *Morgan Room Campus Center* |

## Session II: 2:45 – 3:45 p.m. Focus Group Meetings (Three Meetings in parallel)

| ACRC          | Aluminum Nano Composites for Elevated Temperature Applications *(C. Borgonovo and D. Apelian)*  
|               | *Chairman’s Room Campus Center* |
|               | High Performance Nano Composite Materials – Superior Weapons through Castings Program *(A. Nabawy and M. Makhlouf)*  
|               | and  
|               | High Performance Die Casting Alloys: Castings for Improved Readiness *(CIR-CIRD)* *(L. Wang, D. Apelian, M.Makhlouf)*  
|               | *Taylor Room Campus Center* |
| CHTE          | Carbonitriding and Subcritical/Ferric Nitrocarburizing *(R. Sisson)*  
|               | *Mid-Century Room Campus Center* |
**WPI Campus Center**
**Meeting Rooms**

**Top Floor:**
- Odeum A, B, C
- Hagglund Room
- Mid-Century Room
- Peterson Room

**Middle Level:**
- Morgan Room

**Lower Level:**
- Taylor Room
- Chairman’s Room